# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 10/617,968 | 07/10/2003 | Arvind Prabhakar | 03226.441001;SUN030150 | 4049 |

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| 32615 7590 04/02/2008 | | |
| OSHA LIANG L.L.P./SUN | | |
| 1221 MCKINNEY, SUITE 2800 | | |
| HOUSTON, TX 77010 | | |

| EXAMINER |
|---|
| SMARTH, GERALD A |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2146 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lord@oshaliang.com
hernandez@oshaliang.com
DOCKETING@OSHALIANG.COM

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/617,968 | PRABHAKAR ET AL. |
| | Examiner | Art Unit | |
| | Gerald Smarth | 2146 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☐ Responsive to communication(s) filed on _____.

2a) ☒ This action is **FINAL**.          2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) <u>30-58</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) <u>49-58</u> is/are allowed.

6) ☒ Claim(s) <u>30-38</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

## DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Remark date 12/21/2007

2. Claims 30-58 are presented for examination. Claims 30-58 are currently being examined. Claims 30, 40, and 49 are independent claims. The remaining claims are dependent on claims 30, 40 and 49.

3. The Rejections for claims 30-48 are respectfully maintained and reproduced infra for application's convenience.

### *Claim Rejections - 35 USC § 103*

4.    The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.    Claims 30-48 rejected under 35 U.S.C. 103(a) as being unpatentable over Kirsch (6189030) as applied to claim above, and further in view of Kirsch (6269370) disclosed as Kirsch-New.

Regarding claim 30, Kirsch teaches a method for detecting a redirection loop,

comprising:

 Kirsch teaches Redirection loop but does not specifically teach tracking and a
predefined maximum number of redirects. Kirsch-New teaches these limitation, initiating
tracking when a first access to a first web destination causes a first redirection to a
second web destination Determining, using the tracking logic, that the redirection loop
exists when a predefined maximum number of redirections from the first web destination
to the second web destination occurs within a predefined time limit; and terminating the
redirection loop.

 Kirsch but doesn't specifically teach predetermined time limit for redirection loop
nor predefined number of redirects.

 However Kirsch-New with Kirsch teaches these limitations of predefined time
limit for redirection loops with a predefined and predefined maximum number of
redirects.

 Kirsch-New teaches these limitation, initiating tracking logic (***Kirsch-New
discloses a URL trace must contend with problems of infinite depth due to URL
mutual references and reference looping, made further complex by the existence
of URL aliases; column 3 lines 17-19***) when a first access to a first web destination
causes a first redirection to a second web destination(***Kirsch discloses the final
portion of the preferred structure of a redirection URL is a second URL Column
10 line 9-11***);

Determining, using the tracking logic, that the redirection loop exists when a predefined
maximum number of redirections from the first web destination to the second web
destination occurs within a predefined time limit; and terminating the redirection loop.
(***Kirsch-New discloses if a reference is determined to be invalid for some number
of consecutive attempts by the validation engine 40 to validate the reference over
some time period, the information resource locator is marked as a "dead" URL***

*and any contextual information stored by the database 42 in association with the*
*URL is effectively purged from the database 42; Column 6 paragraph line 21-27*)

Kirsch and Kirsch-New are analogous art because they are from the same field
of endeavor computer networking monitoring.

It would be obvious to a person of ordinary skill in the art at the time of the
invention to modify a method for redirection to include a loop which is tracked during a
predefined time limit.   One of ordinary skill in the art would have been motivated to
make this modification in order to have a redirection loop tracked during a predefined
time limit.  This will allow for redirection loops to terminated and redirected.  This
method will help for Web crawlers to establish searchable web space maps.  These
maps, in turn, are made available on the Internet typically through an advertising
supported or user-fee based search engine interface accessible via a defined web
page.   Completeness and timeliness of the listing of information resources available
through the Internet is of paramount concern to such Internet business services. It also
helps to a related problem is identifying for the subscriber the most active of current
interest information sources.

Therefore it would be obvious to combine Kirsch and Kirsch-New for a method
for redirection to detect loops with a predefined time limit.

Regarding claim 31, Kirsch in view of Kirsch-New taught the method of claim 30, as
described above.  Kirsch wherein the tracking logic identifies the first web destination
and the second web destination. (*Kirsch discloses the final portion of the preferred*
*structure of a redirection URL is a second URL Column 10 line 9-11*)

Regarding claim 32, Kirsch in view of Kirsch-New taught the method of claim 30, as
described above.  Kirsch-New further teaches wherein the predefined time limit is user
configurable. *(Kirsch-New discloses preferably, the purge threshold is set at*
*failure of five consecutive validation attempts made within a ten day period;*
*Column 6 line 27-29)*

Regarding claim 33, Kirsch in view of Kirsch-New taught the method of claim 30, as described above.  Kirsch further teaches wherein determining, using the tracking logic, that the redirection loop exists further comprises:

incrementing a counter when a second redirection from the first web destination to the second web destination occurs within the predefined time limit, as described above. ***(Kirsch discloses simple web page access counters are relatively well known and used throughout the Web. These access counters are based on a common gateway interface (CGI) facility supported by modern HTTPd server systems; Column 2 line 54 –57)***

Regarding claim 34, Kirsch in view of Kirsch-New taught the method of claim 30, as described above. Kirsch-New further teaches wherein the predefined time limit specifies a maximum amount of time between two consecutive redirections from the first web destination to the second web destination. ***(Kirsch-New discloses preferably, the purge threshold is set at failure of five consecutive validation attempts made within a ten day period;  Column 6 line 27-29)***

Regarding claim 35, Kirsch in view of Kirsch-New taught the method of claim 33, as described above.  Kirsch-New teaches further comprising: resetting the counter when the predefined time limit elapses after a subsequent redirection from the first web destination to the second web destination. ***(Kirsch-New discloses if a reference is determined to be invalid for some number of consecutive attempts by the validation engine 40 to validate the reference over some time period, the information resource locator is marked as a "dead" URL and any contextual information stored by the database 42 in association with the URL is effectively purged from the database 42; Column 6 line 21-27)***

Regarding  claim 36, Kirsch in view of Kirsch-New taught the method of claim 33, as

described above.  Kirsch further teaches wherein the counter is stored in a cookie.
***(Kirsch discloses simple web page access counters are relatively well known and used throughout the Web. These access counters are based on a common gateway interface (CGI) facility supported by modern HTTPd server systems; Column 2 line 54 –57)***

Regarding claim 37, Kirsch in view of Kirsch-New taught the method of claim 30, as described above.  Kirsch further teaches wherein the tracking logic stores an identifier of the first web destination in a cookie. **(Kirsch discloses a further advantage of the present invention is that the reference identifier and a redirection directive can both be maintained wholly within the URL specification discretely provided by a client HTML request;  Column 5 line 1-4. It is known that that a cookie has an identifier for destinations in it's header.)**

Regarding claim 38, Kirsch in view of Kirsch-New taught the method of claim 30, as described above.  Kirsch further teaches wherein the first redirection is performed via at least one intermediate web destination. ***(Kirsch discloses alternately, otherwise identical instantiations of an embedded redirection URL may reference any of a number of redirection servers; Column 10 line 25-7)***

Regarding claim 39, Kirsch in view of Kirsch-New taught the method of claim 30, as described above.  Kirsch further teaches wherein the tracking logic is connected to a web browser. ***(Kirsch discloses thus, there is a need to be able to track information obtainable from a client browser when a hyper-linked advertiser's URL is selected; Column 2 line 38-41)***

Regarding claim 40, Kirsch in view of Kirsch-New teaches a system for detecting a redirection loop, comprising:
a web browser for accessing a first web destination and a second web destination;

and an application redirect control system that initiates tracking logic when a first access to the first web destination causes a first redirection to the second web destination; determines, using the tracking logic, that the redirection loop exists when a predefined maximum number of redirections from the first web destination to the second web destination occurs within a predefined time limit; and terminates the redirection loop.

Kirsch alone does not specifically teach a system for detecting a redirection loop, comprising:

a web browser for accessing a first web destination and a second web destination;

and an application redirect control system that initiates tracking logic when a first access to the first web destination causes a first redirection to the second web destination; determines, using the tracking logic, that the redirection loop exists when a predefined maximum number of redirections from the first web destination to the second web destination occurs within a predefined time limit; and terminates the redirection loop.

However Kirsch-New with Kirsch teaches a system for detecting a redirection loop, comprising:

a web browser for accessing a first web destination and a second web destination;

and an application redirect control system that initiates tracking logic when a first access to the first web destination causes a first redirection to the second web destination; determines, using the tracking logic, that the redirection loop exists when a predefined maximum number of redirections from the first web destination to the second web destination occurs within a predefined time limit; and terminates the redirection loop(**Kirsch discloses thus, there is a need to be able to track information obtainable from a client browser when a hyper-linked advertiser's URL is selected; Column 2 line 37-39**) for accessing a first web destination and a second web destination; (**Kirsch discloses the final portion of the preferred structure of a redirection URL is a second URL Column 10 line 9-11**);

and an application redirect control system that initiates tracking logic when a first access to the first web destination causes a first redirection to the second web destination; (***Kirsch discloses a message is provided to a tracking server system in response to a client system referencing a predetermined resource locator that corresponds to a resource external to the tracking server system; Abstract. and Kirsch discloses the final portion of the preferred structure of a redirection URL is a second URL Column 10 line 9-11***) determines, using the tracking logic, that the redirection loop exists when a predefined maximum number of redirections from the first web destination to the second web destination occurs within a predefined time limit; and terminates the redirection loop. (***Kirsch-New discloses if a reference is determined to be invalid for some number of consecutive attempts by the validation engine 40 to validate the reference over some time period, the information resource locator is marked as a "dead" URL and any contextual information stored by the database 42 in association with the URL is effectively purged from the database 42; Column 6 paragraph line 21-27***)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify a method for redirection to include a loop which is tracked during a predefined time limit.  One of ordinary skill in the art would have been motivated to make this modification in order to have a redirection loop tracked during a predefined time limit and a predefined maximum number of redirects.  This will allow for redirection loops to terminated and redirected.  This method will help for Web crawlers to establish searchable web space maps.  These maps, in turn, are made available on the Internet typically through an advertising supported or user-fee based search engine interface accessible via a defined web page.  Completeness and timeliness of the listing of information resources available through the Internet is of paramount concern to such Internet business services. It also helps to a related problem is identifying for the subscriber the most active of current interest information sources.

Therefore it would be obvious to combine Kirsch and Kirsch-New for a method for redirection to detect loops with a predefined time limit.

Regarding claim 41, Kirsch in view of Kirsch-New teaches the system of claim 40, as described above. Kirsch further discloses wherein the tracking logic identifies a redirection in the first web destination. (*Kirsch discloses the information stored in the embedded URL first served with the web page to client system 12 is thus provided back to the server system 16 upon selection of the URL even though the apparent target of the URL is the external server system. A redirection response is then provided by the server system 16 to the client system 12 providing the corresponding redirection URL; Column 7 21-27*)

Regarding claim 42, Kirsch in view of Kirsch-New taught the system of claim 40, as described above. Kirsch-New further teaches comprising:
a configuration unit for configuring the predefined time limit. (*Kirsch-New discloses if a reference is determined to be invalid for some number of consecutive attempts by the validation engine 40 to validate the reference over some time period, the information resource locator is marked as a "dead" URL and any contextual information stored by the database 42 in association with the URL is effectively purged from the database 42; Column 6 line 21-27*)

Regarding claim 43 Kirsch in view of Kirsch-New taught the system of claim 40, as described above. Kirsch further taught wherein a number of redirections to the second web destination from the first web destination is stored as a counter. (*Kirsch discloses the "data" term of the redirection URL provides reference identifier data to the HTTPd server 30 that can be used to further identify and potentially validate a redirection URL to the HTTPd server 30. The data thus permits an accounting of the redirection URL to be made by the HTTPd server 30; Column 8 line 24-28*)

Regarding claim 44, Kirsch in view of Kirsch-New taught the system of claim 40, as described above. Kirsch-New further teaches wherein the predefined time limit

specifies a maximum amount of time between two consecutive redirections from the first web destination to the second web destination. **(*Kirsch-New discloses if a reference is determined to be invalid for some number of consecutive attempts by the validation engine 40 to validate the reference over some time period, the information resource locator is marked as a "dead" URL and any contextual information stored by the database 42 in association with the URL is effectively purged from the database 42; Column 6 line 21-27*)**

Regarding claim 45, Kirsch in view of Kirsch-New taught the system of claim 43, as described above. Kirsch-New teaches wherein the application redirect control system further resets the counter when the predefined time limit elapses after a subsequent redirection from the first web destination to the second web destination. **(*Kirsch-New discloses if a reference is determined to be invalid for some number of consecutive attempts by the validation engine 40 to validate the reference over some time period, the information resource locator is marked as a "dead" URL and any contextual information stored by the database 42 in association with the URL is effectively purged from the database 42; Column 6 line 21-27*)**

Regarding claim 46, Kirsch in view of Kirsch-New taught the system of claim 42, as described above. Kirsch further teaches wherein the counter is stored in a cookie. **(*Kirsch discloses simple web page access counters are relatively well known and used throughout the Web. These access counters are based on a common gateway interface (CGI) facility supported by modern HTTPd server systems; Column 2 line 54 –57*)**

Regarding claim 47, Kirsch in view of Kirsch-New taught the system of claim 39, as described above. Kirsch further teaches wherein the tracking logic stores an identifier of the first web destination in a cookie. **(*Kirsch discloses a further advantage of the present invention is that the reference identifier and a redirection directive can***

both be maintained wholly within the URL specification discretely provided by a
client HTML request;  Column 5 line 1-4. It is known that that a cookie has an
identifier for destination in it's header.)

Regarding claim 48, Kirsch in view of Kirsch-New taught the system of claim 39, as
described above.  Kirsch further teaches wherein the first redirection is performed via at
least one intermediate web destination. *(Kirsch discloses alternately, otherwise
identical instantiations of an embedded redirection URL may reference any of a
number of redirection servers; Column 10 line 25-7)*

## Response to Argument

Applicant's arguments with respect to claim 30-48, have been considered but are
moot in view of existing rejection.

Claims 30-48 are being anticipated by Kirsch in view of Kirsch-New. Both Kirsch
and Kirsch-New are using a counter in-order to tell how many times a redirection has hit
a web destination.  Kirsch also discloses specifying a predetermined time period for
these redirections to occur among multiple web destinations.

Regarding claim 30 recites "Determining, using the tracking logic, that the
redirection loop exists when a predefined maximum number of redirections from the first
web destination to the second web destination occurs within a predefined time limit; and
terminating the redirection loop."   The use of the phrase "predefined maximum number

of redirections" does not specify the amount. Thus not specifying the number of

redirections, the number can be considered to be 0 or 1. This allows for at most a

single redirect, from first web-page to second web page. This would allow for Kirsch

over Kirsch-New to still cover the limitations in claim 30.

### *Allowable Subject Matter*

Claims 49-58, The following is a statement of reasons for the indication of allowable

subject matter: The prior art of record does not teach the limitation "identifying a first

redirection from the first web destination to a second web destination when processing

the first request; initiating tracking logic based on the first redirection. Receiving a

subsequent request to process the first web destination; identifying, using the tracking

logic, a subsequent redirection from the first web destination to the second web

destination when processing the subsequent request and incrementing a counter when

the subsequent redirection from the first web destination to the second web destination

occurs within a predefined time limit."

### Conclusion

6.     Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Gerald Smarth whose telephone number is (571)270-

1923. The examiner can normally be reached on Monday-Friday(7:30am-5:00pm)est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeff Pwu can be reached on (571)272-6798. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gerald Smarth/

Examiner, Art Unit 2146

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2146